

to show that Ehrenberg has been guilty of the greatest arbitrariness. In the last nine pages we have a view of the genera which M. Corda has made for his family of the *Euastrea* and *Cosmarieæ*; and all botanists who have occupied themselves with observations on this subject, will be somewhat surprised at the by no means small number.

[To be continued.]

XLVIII.—*Descriptions of new or little known Arachnida.* By Mr. ADAM WHITE; Assistant in the Zoological Department of the British Museum.

HAVING been favoured by Mr. Darwin with the whole of the extensive collection of Arachnida, made by him on the voyage of H.M.S. Beagle, I intend describing them occasionally in this journal, as well as several others from Van Diemen's Land, collected by Mr. Gunn. From Mr. Bracy Clarke I have received a collection of spiders made by him in Switzerland during his travels and residence there in 1798, along with MS. notes drawn up at the time; Mr. Swainson, before setting out for New Zealand, also kindly gave me a bottle of spiders from St. Vincent's, collected by the late Lansdowne Guilding. They are all preserved in spirits of wine, as spiders should always be if possible, and, to some of Mr. Darwin's, notes are occasionally added, which I have that gentleman's permission to extract from his copious manuscript journal*. I describe them without any systematic order, but having necessarily numbered each species, intend afterwards giving a classified index: the descriptions are in many instances prolix, and I have in most cases given the *generic* character of each species. I have done this because, at present, I am unwilling to propose new names if I can possibly refer the species I describe to any of the established genera. I need hardly say, that in spiders the colours are so fugitive, that unless notes or even drawings are taken from live specimens, but little dependence is to be placed on the colours assigned in descriptions taken from the best-preserved specimens†. Travellers should be particular in doing this, as well as in taking notes of their habits, whether land or aquatic; whether they hunt for their prey by running after it—jumping upon it—or whether they conceal themselves in holes,

* These notes, there is no use saying, were always made amid the hurry and bustle of a campaign in which annulose animals formed but a small part of the subjects of research. I prefer giving them as I find them, as there is a *freshness* about them which would be *rubbed off* were I to attempt to improve them.

† For an example, see the first description (*Linyphia argyrobapta*).

tubes, or cells made by themselves, and should also describe the nature of these abodes when possible; whether they wander about without any fixed residence, walking or running sideways; whether they make a web or threads for entrapping their prey, or whether they are sedentary, constructing close webs, or extending them with regular geometric accuracy or in irregular large meshes*. Spiders are frequently found in a very perfect state in several of the nests of the fossorial Hymenoptera. Mr. Abbot mentions, in the notes accompanying his unpublished drawings of Georgian *Annulosa*, that *Pelopæi* are the best spider-collectors he ever met with, and save the arachnologist a great deal of trouble, as he has frequently found, in the nests of these insects, species he has been unable to meet with elsewhere,—the specimens in the most beautiful condition, as the Spider-wasps do not kill, but in some way paralyse with their stings the destined food of their young; and were British arachnologists to look into the nests of our native *Pompili*, “rare captures” might often be made. As the note alluded to is very interesting, I transcribe it here *verbatim* from the original in the British Museum. Those who have consulted Walckenaer’s first volume, and know how much science is indebted to Abbot for his discoveries of new species of Arachnida, will excuse its length. Drury (Ill. i. pp. 105, 106) and Darwin (Journal of Researches, p. 40) mention similar instances. “*Sphex lunata*, Fab. (*Pelopæus lunatus*, Fab. Syst. Piez.), called in Savannah Black and Yellow Mason, and likewise Dirt-daubers: they make oblong cases of clay, which they plaster in layers to roofs, ceilings, and other convenient places; when finished they lay an egg inside at the end, then fill it with spiders and plaster them up. The worm (larva), by the time it eats them all, is full fed, and spins round itself a thin case like gold-beater’s skin, in which it changes into chrysalis; it begins to build in May and continues all the summer. What is remarkable, they have the art to embalm these spiders alive, or rather enchant them. Upon opening one, the spiders are alive, but unable to walk or make the least resistance, being just able to move a little, sometimes a leg, and they appear plump and (of a) fresh colour. I imagine they do this by stinging the spiders: this is a wonderful property and provision of nature to provide the worms with fresh and proper food as long as is needful. Upon putting some of these spiders in a box, they continued plump and fresh several days before they began to alter. One

* Remarks of this kind or of a similar nature would often prove extremely interesting, as the Baron Walckenaer has shown that in most cases the family may be ascertained by the habit, and *vice versâ* the habit by the family.

fly continues to build several cells alongside and upon each other: they destroy an amazing number of spiders; they commonly put all, or the most part of one particular species together in one cell, many of them of very rare species, and such I imagine must live chiefly on the tops of branches of the loftiest trees, as I could never afterwards meet with these specimens of spiders. Upon opening several of these cases at once, it affords (as you may judge) a most curious and pleasing sight—such a large number of spiders of the most beautiful colours and rarest species. Could it be possible still to continue to preserve them in their beauty and freshness, they would make a wonderful collection of natural history.” It is much to be desired that the other volumes of Baron Walckenaer’s elaborate work were published*. I may add, that specimens of all the species here described, unless otherwise intimated, will be found in the collection of the British Museum, and that I have made figures of most of them, which I intend to publish hereafter.

1. *Linyphia (Leucauge) argyrobapta*, n. s.

Brownish yellow; chelicera darker, at end blackish brown; claws black. Abdomen silvery, with five brownish black (when alive red) longitudinal lines all meeting at the end, the middle one alone taking its origin from the base, and having a lineolet of the same colour extended nearly to the lateral black line, and two small approximating parallel lines directed backwards, arising from about the middle, and extending to the irregular line on each of its sides; the end of the abdomen, where all the lines meet, is brownish black, and there are two distinct silvery spots; the body beneath is brownish black, with a whitish line on each side, and a dot beneath it.

Chelicera vertical, oblong, cylindrical, shining; first joint with one or two teeth at end, upon which the long hooked claw closes inwards; this claw is straight at the base and then hooked.

Eyes eight, on two transverse lines; four placed in the middle, the two posterior further apart; the side eyes of last lines are in pairs.

Maxillæ dilated at end, the outside with a few hairs.

Palpi slender; fifth joint as long as second, ending apparently in a claw, and hairy.

Mentum small, not very distinct from the heart-shaped sternum.

Cephalothorax depressed, narrowed in front, dilated on the side, sinuated behind, with a deep impression beyond the middle, in front of which are two impressed lines directed sideways, and extending forwards to the base of the narrowed part.

* July 2. Since this paper was written the 2nd volume of Walckenaer’s work has been published.

Abdomen oblong, smooth, or, at most, only shagreened, with four distinct spinnerets.

Legs, at least first two pairs, very long.

Ourspecimen, in this respect, was much mutilated: in Mr. Darwin's MSS. I find that the first pair of legs is much the longest, then the second and fourth, and that the third is shortest.

"Web very regular, nearly horizontal, with concentric circles; beneath, but sometimes above, the concentric web, there is an irregular or thin tissue of network; the animal rests in the centre, on the inferior surface: abdomen brilliant; the red colour like a ruby with a bright light behind." The subgeneric name is one proposed for it in Mr. Darwin's MSS.—Brit. Mus. Hab. near Rio de Janeiro. May 1832. Charles Darwin, Esq., F.R.S., etc.

2. *Linyphia* (?) *leucosternon*, n. s.

Body and sternum shagreened; the sternum and body above grayish white; body beneath grayish black, spotted with white (there are four principal spots in the middle).

Cephalothorax, palpi and legs yellowish, the joints of the latter darker; cephalothorax behind margined with whitish; the sides hairy: claws of chelicera port-wine colour: eyes black.

Chelicera short, swollen, smooth, nearly of equal breadth throughout, with a few (3) teeth inside at the end, and armed with a short strong claw folding inwards.

Eyes eight, not very unequal in size, arranged in two transverse lines, the first bending outwards and shorter than the second; the lateral eyes are the closest and oblique; the two central of each line form nearly a square.

Maxillæ somewhat spatulate.

Palpi with the second and fifth joints nearly equal, the fifth being somewhat hairy at end, and apparently terminating in a short claw.

Mentum semioval.

Sternum cordato-sagittate.

Cephalothorax narrowed and truncated in front, dilated and nearly as broad as abdomen behind; this is of a long, oval shape, overlapping the cephalothorax at the base. The legs are long and slender; first pair the longest, then the second, the third being much shorter than the fourth.

Spinnerets distinct.

Hab. Brazil, near Rio de Janeiro. C. Darwin, Esq.

3. *Epeira* (*Singa**) *leucogramma*, n. s.

Cephalothorax ferruginous; space about the eyes dark brown; body and legs grayish brown, darkest on the sides of the body; body above with three white longitudinal lines proceeding from the base and terminating just before the tip; the middle one

* A subgenus founded by Koch, with the beautiful European *Epeira Herii* of Hahn as the first species. (Uebers. des Arachnidensyst. p. 6.)

somewhat interrupted; all three are margined with black, which is deepest (thickest) at base; beneath with two abbreviated, somewhat distant, longitudinal white lines margined with black; legs ringed with black.

Chelicera vertical, rather longer than they are broad (at base), smooth, somewhat swollen, armed with an incumbent short claw.

Eyes eight, arranged transversely in two lines; the first very short, containing two eyes; the second, with two in the middle, forming nearly a square with those of first line, which square is on a projection of the cephalothorax; the two lateral eyes are so close together that they seem as one; they are placed somewhat behind the middle pair, and are somewhat further removed from them than these are from each other.

Maxillæ short, rounded; base giving insertion to palpi, which are weak, and have the fourth and fifth joints nearly equal; (fifth armed with a minute claw?).

Mentum short, rounded, distinct from the heart-shaped sternum.

Legs short; last pair the longest; third shorter than the first and second, which are nearly equal in length.

Cephalothorax longish, narrowed in front, and not much more than half the width of the abdomen, which is of a fine oval shape.

Hab. Brazil, near Rio de Janeiro. C. Darwin, Esq.

4. *Tetragnatha bicolor*, n. s.

*Type of genus Anelasma
see under to Geoff. Trav.
N. 2. p.
1843-*

Legs, cephalothorax and palpi brownish yellow (in some the palpi are dark brown); body shagreened above, griseous, with three or four indistinct brownish lines; a lighter band on the side, beneath darker; two greenish gray lines run down the middle, parallel to each other till just before the spinnerets, where they somewhat converge; eyes black.

In the male the abdomen is nerved or shagreened with brownish, and is not so distinctly marked beneath; a brownish line, somewhat interrupted, and emitting a few equal, narrow, brown lineolets directed backwards, runs down the middle.

Chelicera large, very prominent, loose, smooth, subcylindrical, as thick at the end as at the base, and only slightly gibbous on the inner edge, which is furnished with a double row of tooth-like processes, upon which the strong and long claw folds inwards; this claw is more than half the length of the first joint, and at base is straight, and then suddenly bent;

Eyes eight, placed on two lunated parallel lines: the two intermediate of the first line smallest and closer to each other than they are to the side-eyes of the same line, while the two intermediate eyes of the second line are somewhat more distant from each other than they are from the side-eyes of the same line.

Maxillæ oblong, somewhat bent outwards at the end, which makes the outer margin sinuated; the inner margin is clothed with a

line of short thick-set hairs ; the maxillæ approximate by their inner edge.

Palpi slender, with the second joint curved, and rather longer than the fourth and fifth, which are nearly equal ; the last joint seems to end in a claw, and is rather hairy : in the male the fifth joint is dilated on its under side ; at base there is a smooth, roundish, globular process ; sternum longish heart-shaped, sides somewhat irregular.

Cephalothorax of a long, slightly depressed oval shape, which is as broad as the abdomen at base.

Abdomen long (two-and-a-half times the length of the cephalothorax), narrow, subcylindrical ; at base somewhat swollen, the swollen part overlapping the end of the cephalothorax ; at the end it tapers abruptly, being roundish and slightly recurved : it is covered with close and short hairs.

Legs slender ; first pair the longest ; second as long, if not a little longer than the fourth ; the third pair is very short, half the length of the second ; one of the joints is somewhat swollen and curved.

Hab. Van Diemen's Land. R. Gunn, Esq.

Walckenaer figures two species, *argentea* and *zorilla*, both with a longish oval body. Guérin (Encycl. Méth. x. *sub voce*) alludes to two or three other species of this genus, from Africa and America, and Koch describes two others in his 'Uebersicht,' (p. 5) ; but this is, I believe, the first species described as coming from Van Diemen's Land. As will be seen in the description, there are some characters which would constitute it, at least, another section of Latreille's genus, if not a subgenus.

5. *Eripus heterogaster*, Walck. *Thomisus heterogaster*, Latr.
Guérin, Iconogr. Arachn. pl. I. fig. 4.

"Evidently, by its structure and habits on the leaf of a tree, this species is a Laterigrade ; it differs, however, most singularly from that tribe, and is, I think, a new genus.

"Anterior eyes red ; maxillæ rounded, inclined ; mentum thinly arrow-shaped ; chelicera powerful, with large aperture for poison ; abdomen encrusted with five conical peaks ; thorax with one small one ; crotchets to tarsi very strong.

"Colour snow-white, except tarsi and half of leg bright yellow ; the tops of the abdominal points and line of eyes black : it must, I think, be new. Taken in the thick forests near Rio de Janeiro, May 1832." Darwin's MSS.

Salticus (Homalattus) pustulatus*, n. s.

Upper side black, with greenish reflections.

Eyes eight, on short elevations of thorax ; may be considered as placed on three lines, two of which are approximate, the third

* *Homalattus*, a new subgenus, now proposed for the first time ; the legs are unfortunately destroyed.

being distant ; the first line, which is somewhat bent, contains four eyes, placed on the front margin of the cephalothorax at nearly equal distances from each other ; the two intermediate eyes are much the largest. The second line contains two very minute eyes, somewhat removed from the edge of the thorax ; they are placed rather nearer the outer eye of the first line than the outer is to the intermediate ; the third line contains two eyes, one on each side the margin of the thorax, the space between the outer eye and the first line being equal to the distance between the outer eyes of the first line.

Cephalothorax flat, transverse, not so wide as the body, covered like it with papillæ.

Abdomen as broad as long ; in front straightish ; behind somewhat pointed, the sides rounded ; it is flat and compressed, and somewhat convex above.

Hab. Sierra Leone. Rev. D. F. Morgan.—Brit. Mus.

Pholcus geniculatus, n. s.

Body above yellowish, with at least twelve blackish brown spots, eight in the centre, arranged in pairs, and decreasing in size as they approach the apex : sternum and broad line down the centre of body : beneath blackish brown : legs reddish yellow ; at the first joints ringed with blackish and pale whitish yellow ; last joint pale, without two blackish rings.

Maxillæ of a long triangular shape, and almost meeting over the mentum ; the palpi proceed from the nearly right angle at base, and have the terminal joint much shorter than the fourth and second, which are almost equal in length.

The mentum seems somewhat square.

Cephalothorax nearly circular, rather broader than long, somewhat truncated behind, and deeply impressed in middle ; it is as wide as the longish oval abdomen : legs very long and slender, nearly smooth, except last joint ; first longest ; third shorter than second and fourth, which are nearly equal.

Hab. Brazil, near Rio de Janeiro. C. Darwin, Esq.

XLIX.—*Additions to the Fauna of Ireland*. By WM. THOMPSON, Esq., Vice-Pres. Natural History Society of Belfast.

OF the few vertebrate animals treated of in the present communication, one only can be announced with the certainty that is desirable, as Irish : the others are noticed to induce further attention to them, and at the same time to enable any one interested in the subject to form his own opinion respecting the propriety of their introduction, even with doubt, into the Fauna.

MAMMALIA.

Mus messorius, Shaw ? Harvest Mouse. May 12, 1838.—Mr. Adams, gamekeeper at Shane's Castle Park (co. Antrim), mentioned